THE METROPOLITAN BOARD OF WORKS, 1855-1889

BY

DOROTHY MAXINE CORLETT

B. A., Rockford College, 1940

A. M., University of Illinois, 1941

AN ABSTRACT OF A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN HISTORY
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At the opening of the nineteenth century London had no recognized system of local government. Within the city there were numerous governing bodies, but none of them could extend its activities beyond its own local area. Disease and pestilence, however, knew no geographical boundaries, and in a city where the population increased from 958,863 in 1801 to 2,362,236 in 1851, they cost large tolls of human life each year. Eventually concern over the physical well-being of London's millions gave the impulse for the establishment of the Metropolitan Board of Works.

From the beginning of the eighteenth century English scientists had been experimenting in the field of preventive medicine. There was a growing belief that sickness followed ascertainable laws of cause and effect and that diseases were preventible. At the same time, a new sentiment of humanitarism gained strength in England. Local and national governing bodies, however, gave only slight recognition to the new discoveries and the new spirit, and in towns and cities insanitary conditions continued at the expense of public health. The outbreak of Asiatic cholera in 1831-1833 in Europe gave stimulus to some efforts to improve conditions, but once fear had abated, reforming tendencies were forgotten. There were, however, some people who were deeply impressed both by this epidemic and by perennial, though less catastrophic scourges. Preeminent among them was Edwin Chadwick, who became the leader in a great public health movement. Through his efforts committees and commissions investigated and made sensational reports on the shocking state of London sanitation. These reports emphasized the connection of epidemics with local insanitary conditions which in most cases could be remedied. Despite their revelations, London was excluded from the jurisdiction of the first Board of Health established in 1847. A Royal Commission was appointed to inquire whether any and what special means might be required for improving the health of the metropolis. The Commission's

main finding was that the responsibility for sewerage and other like functions in the metropolis was divided among many commissions of sewers having no direct relation to one another. Upon their recommendation a separate measure for the metropolis providing for the appointment of metropolitan commissioners of sewers was passed in 1848.

The first Board of Health was replaced by a second in 1854 just at the time when a new cholera epidemic was reaching its height in the metropolis. The president, Sir Benjamin Hall, devoted whatever time he could spare from attention to the epidemic to a study of the many defects of sanitary laws. In the case of London it was certain that no progress in social conditions could be made until the muddle of petty authorities was swept away in favor of an organized government. London had not been included in the reforms of the Municipal Corporations Act of 1835. Although the report of a Royal Commission on London of 1837 recommended that the metropolis be dealt with in the same fashion as other towns, nothing was done for eighteen years.

The London of the middle of the century was a city in which the sanitary conditions and water supply were deplorable. Within the City conditions were somewhat better than outside, but the medical officer, Sir John Simon, found plenty of evidence for vigorous denunciatory reports. The metropoolis was a mass of cesspools and of streams and ditches converted into open sewers. The covered sewers which existed were usually sadly defective so that the contents stagnated, blocked up, and flooded the basements of houses. The sewage which did not stagnate within them was emptied into the Thames, there to fluctuate with the tide so that the river became a foul nuisance and the shores became offensive mud banks. Despite the condition of the river many of the water companies drew their supplies from the Thames within the metropolis. Very slight improvement resulted from the act of 1852 requiring the companies to take water solely from above Teddington Locks and to filter it before delivery. Although by mid-century the mains and pipes of the companies had been carried into all portions of the metropolis, the com-

panies were under no obligation to supply all the houses. Moreover, at best, the supply was generally intermittent, and in many places no water was delivered on Sundays.

Many other problems besides sewage disposal and water supply in London needed attention. The houses of the working classes were wretched. The main thoroughfares were congested, and in general the narrow streets of the metropolis were in extreme need of widening, rebuilding, and repairing. Additional free bridges were needed for crossing the Thames. The difficulties of transportation had been actually increased by the introduction of omnibuses in 1829.

In the affairs of government so confused were the overlapping authorities outside the City boundaries that there were nearly two hundred fifty local acts in force, administered by at least three hundred different bodies with an estimated 10,450 commissioners, mostly coopted (self-elected) and with no responsibility to the ratepayers. In addition, there were two boards which had great powers of taxation, over which the ratepayers had no control. These were the officers appointed under the Metropolitan Buildings Act of 1844 and the Commissioners of Sewers of 1848 which had accomplished very little despite a large debt. In view of the incredible mismanagement of the metropolis, Sir Benjamin Hall presented his Metropolis Local Management Bill in 1855, based in part upon the recommendations of a Royal Commission of 1854 on the Corporation of the City. Hall was quite largely moved by the notion that there was a connection between public health and sewage disposal. A main purpose of his bill was to prevent the flow of sewage into the Thames. It was provided that London's twenty-three larger parishes should become vestries while the smaller ones were to be grouped into fifteen districts to be managed by district boards elected by those vestries. The vestries and district boards were to be the local governments for their areas for purposes of sewerage and draining, cleansing, paving, and lighting. They were to send delegates to a Metropolitan Board for certain common purposes, chiefly main drainage. To defray the expenses of its functions the Board was to have power to levy rates in the metropolis and to borrow money on the security of those rates.

The Metropolitan Board of Works created in 1855 has received little attention from historians even though there is an abundance of Parliamentary papers such as reports of Royal Commissions, select committees, and special bodies available on London government in the nineteenth century. The printed minutes of the Board's proceedings and its annual reports to Parliament afford detailed accounts of its work and its own evaluation of its needs and accomplishments. They show how the Board achieved a distinguished array of improvements and effected great changes in the physical aspects of London from 1855 to 1889. In addition the debates of Parliament, *The Times*, and writings of the reformers reveal some of the attitudes with which the Board's position and activities were viewed.

During the first three years the Board bade fair to fulfill the skeptics' predictions in regard to its inefficacy. In undertaking its greatest task of improving the sewerage system and diverting sewage from the Thames within the metropolis the new authority encountered the opposition of the First Commissioner of Works who had been given the power of veto over its plans. That authority refused to sanction the schemes the Board presented. Matters remained in a state of deadlock until 1858 when a new First Commissioner determined to free the Board from the restrictions of the 1855 act. He secured an act making the Board the sole authority for executing the sewage works and granting it additional financial powers. The Board immediately set about providing a system by which as much sewage as possible would be carrried away by gravitation and the remainder would be discharged by pumping. Evils of improperly constructed sewers were abolished by laying down new lines of sewers constructed at right angles to existing sewers and a little below their levels so as to intercept their contents and convey them to an outfall. Huge outfall sewers carried the sewage to large reservoirs on each side of the river near Barking where it was discharged into the Thames below the city. The Board's main drainage system drained an area of 117 square miles. It was constructed at a cost of four and a half million pounds and ranked as one of the wonders of sanitary engineering of its day.

In addition to the works of main drainage the Board undertook the repair and reconstruction of 165 miles of existing main sewers in order that those which were open might be covered, or abandoned, and those which were covered but shallow or otherwise defective might be reconstructed and all adapted to one system. Still one task of drainage remained. In construction of the main drainage system provision had been made for a considerable amount of rain water to be carried off, but at times of excessive rainfall some areas were still subject to flooding. The Board set to work in 1880 and effectually relieved nearly all these localities. It performed a further service by sanctioning construction of eleven hundred miles of local sewers so as to secure uniformity. On sewerage and drainage projects it spent altogether about six million pounds. A central authority had finally brought into existence a gigantic system which diverted the sewage from the Thames within the metropolis and freed the city of certain causes of disease. For a time it was expected that the sewage could be profitably used for agricultural purposes; but eventually that whole idea was given up. The disposal of the sewage after it reached Barking became a problem, for complaints were made against the odor and deposits arising from discharge of the crude sewage into the Thames at that point. It became necessary for the Board to adopt a method of deodorizing and precipitation and the use of vessels to carry the sludge out to sea. It was expected that this action, taken in the Board's last years, would prevent any further annoyance from pollution of the river.

A great part of the nuisance which was caused by the Thames was due to the unsightly mud banks which were exposed at low water. The subject of an embankment of the shores came early under consideration of the Metropolitan Board when an embankment was proposed to carry the northern low level sewer. In 1862 the Board received the power to make the northern embankment and to have the use of a fund created from the proceeds of the coal and wine duties for the purpose. The Board constructed an embankment from Westminster Bridge to Blackfriars Bridge with a one hundred foot roadway which was open to public traffic in 1870.

The main approach to the roadway was from Charing Cross by way of Northumberland avenue. This one and a quarter mile Victoria Embankment reclaimed over thirty-seven acres of land from the river, afforded a location for the northern low level sewer and a railway, and provided a spacious new thoroughfare. Subsequently the Board secured powers to construct the southern, or Albert, Embankment from Westminster Bridge to Vauxhall Bridge and the Chelsea Embankment. The latter embankment carried the low level sewer of the western area, and its seventy foot roadway completed a thoroughfare along the riverside from Blackfriars to Battersea Bridge, four and a half miles in length. All the embankment works were completed by 1874 at a total cost of about two and a half million pounds. They were impressive structures offering a group of useful London improvements which greatly improved the river in purity and flow. They afforded relief from flooding in certain areas and facility for building the sewers. Their wide roadways gave relief to the crowded streets of the metropolis. In all, the embankments formed one of the most prominent features of London and one of the finest works of which any city could boast.

By the act of 1855 vestries and district boards had been made responsible for flood prevention but had not carried out their functions. A controversy was waged between them and the Board over this responsibility since the local authorities insisted flood works should be a metropolitan charge rather than a local one. The central body finally won the contest in 1879 when it received power to compel owners of riverside property to build such works as were necessary to prevent overflow of the Thames in accordance with plans prepared by the Board. These measures were successful in securing protection of the river's banks so that there was no repetition of the disastrous inundations to which some of the low-lying districts had formerly been subject.

The task of improving London's streets was a great one. The Board had secured power to assume that function by the act which established its existence. It was not, however, given authority to acquire land by compulsion. Consequently most

of the important street improvements were carried out under special acts of Parliament. The Board turned its attention early to the matter, but it did not draw up at the very beginning a proper comprehensive plan to which all local and individual schemes should be kept subordinate. As a result, too often local jealousies and unwillingness to contribute to the cost of projects in different parts of the metropolis caused trouble. The Board participated in both metropolitan and local street improvements, the latter being projects of a smaller kind to which the Board contributed part of the cost, usually one-half. The most costly project was the new road from Blackfriars to the Mansion House, known as Victoria street, which completed the great thoroughfare of the northern embankment from east to west. It was a street 3,450 feet long and seventy feet wide, built from the proceeds of the coal and wine duties. Upon all its street projects including the new roads along the embankments the Board spent over fifteen million pounds, which was reduced to ten million pounds net by the sale of surplus lands. By the time the Board finished its work, it had been able to construct a few new streets and to widen and improve many old ones, but the main thoroughfares were still congested and it was still difficult to travel readily from one end of the city to another.

In 1855 only three free bridges afforded communication across the Thames, so that London's increasing traffic must pay toll or else follow a long and devious route in order to cross without toll from one side of the city to another. This inconvenience only added to the congestion of the streets. The Board considered that one of its duties was to afford relief for this traffic problem but did not proceed with the bridge question for a long time because other improvements were more urgent. Popular pressure finally determined it in 1873 to extinguish all bridge tolls. After its attempts to secure coal and wine duty funds had failed, in 1877 the Board was authorized to borrow one and a half million to free ten Thames bridges, a duty which it carried out with despatch. This left only three Thames bridges which were not in the Board's possession. The freeing and rebuilding of bridges afforded a great boon to London's traffic in the western and central

sections. The Board was, however, not successful in attempting to provide for the eastern section where dwelt one-third of London's population. By the time the Board was dissolved it had secured only a ferry at Woolwich and was contemplating a tunnel at Blackwall.

To provide transportation facilities for London, private attempts were made to secure a tramway system in the 1860's. These efforts failed, but finally proposals became so numerous that the Board of Trade in 1870 secured an act to facilitate construction and regulate the working of trams. The Metropolitan Board did not assume the optional duty of laying tramways itself which was given by the act, but merely undertook the position of a confirming authority which gave its assent or refusal to projects of private companies. The result was a continuous conflict with the local authorities who must also give their consent. The whole system of London was relatively unsuccessful due to the strenuous objections made against the laying of rails in certain sections and to the narrowness of the streets. The mileage of tramways laid in the city during the Board's time was small, and the lines were not connected so as to give through service.

When the Metropolitan Board was established there were in London only a few parks under the control of the Office of Works. The need was great for additional open spaces for purposes of health and recreation. An act of 1856 assured to the Board the right to provide for that need. Many members of the Board, however, opposed the added expense and consequent heavier taxation to pay for such works. Plans for two parks were adopted but were delayed for many years while the Board waited for revenues from sources other than the rates. After twelve years Finsbury and Southwark parks were laid out and later a large addition of two hundred forty acres was made to the Board's park lands by acquisition of Hampstead Heath. The greatest benefit conferred by the Board in securing open spaces for the metropolis was its service in aiding to preserve the common lands on the outskirts of London. By 1888 there were twenty-six hundred acres of park land under the Board's jurisdiction. Often negligence and delay has been shown in acquiring recreational grounds

for the benefit of the metropolis. The Board's acquisitions were not nearly sufficient to supply the need, but at least there had been an improvement over the situation in 1885.

Since the Board comprised the only body which functioned for the London metropolitan area, Parliament had seen fit to turn over to it additional duties on various occasions. One of these responsibilities was that imposed in 1865 for protection from fire, a service which had formerly been afforded by the fire insurance companies. After lengthy negotiations it was agreed that the government should contribute ten thousand pounds a year, the insurance companies should contribute thirty-five pounds per million on their insurance, and the remaining thirty thousand should be raised by a half penny rate per pound on the metropolis. The Board's fire brigade exhibited progressive success and managed to decrease the percentage relation of serious to slight fires from twenty-five per cent in 1865 to six per cent in 1888. The men were well-trained and courageous, but their numbers were too small, and lack of money prevented the adoption of improved equipment and methods. The Board made persistent efforts to secure additional funds but without success. The whole brigade remained on a scale very disproportionate to the requirements of a great and wealthy city.

A second large responsibility, and one directly concerned with the social welfare of London's millions, was that of housing the working classes. It was not until 1875 that the Board was given the duty of undertaking housing activities. In that year the Cross Act was the first of its kind to authorize large scale clearance schemes and to empower local authorities to condemn, demolish, and reconstruct whole areas. Almost immediately the Board took steps to put the act in force. It never undertook the task of putting up new buildings but rather left that to private companies. The Board was often criticized for delay and for hesitation in interfering with private property for the sake of public welfare. In defense, it pointed to the involved and lengthy procedure under the Cross Act and to the high cost of land covered with unfit houses. Investigations by a select committee in 1882 and by the Royal Commission of 1884 revealed that both vestries and district

boards and the Metropolitan Board had tried to shift their responsibilities. Amendments to the housing acts were intended to afford relief but had little success. The Board was hindered by lack of money, by vested interests, and by the prejudice which upheld a man's fredom to do as he wished with his property. It did manage to clear away about fifty-nine acres of the worst slums and to rehouse twenty-eight thousand people, but by 1888 only a small part of the housing situation had been dealt with.

The efforts of the Board in relation to the gas and water supplies are of significance not because the Board acquired new powers in those fields but because in the late 'sixties it promoted schemes of municipal ownership of both those utilities. The gas companies in London had built up an extremely profitable business by the middle of the century, but it was felt by their customers that they were not securing good gas and were paying high prices. Attempts of the Board to secure strict control over the companies or to buy their property were unsuccessful in 1866. It was, however, the Board's promotion in 1874 of a bill for regulation of the companies which resulted in the adoption of the double-acting sliding scale. By that system the companies accepted a reduction of their dividends whenever they increased the price of gas beyond a certain initial figure but were allowed a higher dividend when they reduced the price. As a result gas became cheaper than ever before, and the Board's severest critics admitted that the system was a real improvement. In the matter of water supply the Board was less successful. It did very little which contributed to a purer and more constant supply. All its efforts to secure municipal ownership were balked by the strong opposition of the water companies and by the opposition of certain ratepayers to the Board's expenses in promoting such measures. By critics of the Board the failure was attributed to the weakness of the Board, but its successor, the London County Council, was unable to accomplish more than the Board had done.

The finances of the Board demanded a great deal of attention, and its lack of funds was the subject of complaint in its annual reports. Originally the body was given power to levy

rates on the parishes and districts and to borrow money on the security of these rates. Very soon, however, it found its borrowing powers insufficient. In 1858 its efforts resulted in an act giving it authority to borrow three million pounds for main drainage purposes and requiring it to raise during forty years an amount equal to a rate of three pence in a pound. The sums were to be raised by a metropolitan main drainage rate, and a government guarantee was given for the loan from the Bank of England. In 1863 the borrowing power was extended by one million two hundred thousand pounds. Parliament had thus provided for the Board's needs for main drainage, but the funds for other purposes must be found elsewhere. The Board turned its attention to other means than direct taxation such as port dues, coal tax, and duties on vehicles. It succeeded in securing the extension of the coal and wine duties to 1888 for the embankments and Victoria Street and in getting a government guarantee for funds borrowed for the purpose. This guarantee enabled it to borrow at a moderate rate of interest.

During the following years the Board made further efforts to improve its financial position. An attempt to obtain the hackney carriage duties failed as did its efforts to secure an improvement rate levied on property owners. Meanwhile the Board's operations increased year by year as Parliament gave it new responsibilities. Still no settled system of finance had been worked out, and the Board was obliged to keep separate accounts and secure separate allocations of funds for each of its activities. The most difficult problem was to raise money at a moderate rate of interest. By the later 'sixties the Board was believed to have reached the limit in levying rates. In 1869 a solution was reached whereby the cost of all the Board's great London improvements should be spread over sixty years and money for them should be secured by a metropolitan consolidated stock redeemable within sixty years. To redeem the stock and pay dividends upon it a consolidated loan fund was created. In the future a single rate was levied by the Board for all its annual expenses. The financial arrangements of the Board were thus simplified considerably. The Board's finances were kept under the review and control of the legis-

lature. Its powers under the act were wisely exercised and its stock always stood high on the market. The rates continued to rise nevertheless, and despite an ever increasing revenue the Board had by the end of its career contracted a large debt.

The Board had been established for a limited purpose and amidst skepticism as to its ability to accomplish anything, but as the years passed its duties had been ever expanded. No alteration was made in its constitution to meet its changed position. The body therefore became the object of efforts of reformers who protested against its indirect election, its lack of control over local authorities, and its position of dependence upon Parliament. The continued existence of the independent City Corporation within the limits of jurisdiction of the Board was likewise deprecated by many. From 1867 onwards private bills were frequently brought before Parliament to secure some sort of change in London government. The movement became especially strong in the early 'eighties and by 1884 the government's help was secured in promoting a measure but without success. The reformers were aided by strong rumors of jobbing in the Board and of improper dealings with some of the Board's lands. A Royal Commission of 1888 found that many of these charges were true, and public feeling against the Board increased. Meanwhile the reform movement resulted in inclusion of the metropolis in a scheme for county administration presented by Mr. Ritchie, president of the Local Government Board. That measure brought the dissolution of the Metropolitan Board of Works and the transfer of its powers to the London County Council.

The scandals of the last years of the Board tended to obscure the record of its works, but even its severe critics paid tribute to its achievements. The Board had shown the advantages of a central government for London and had brought some order out of the chaos which existed in 1855. Its constructive efforts had effected great improvements in London during the period 1855 to 1889.

VITA

Dorothy Maxine Corlett was born on December 17, 1918, near Rockford, Illinois. She attended a rural grade school and Rockford high schools and in 1936 was granted a freshman scholarship for study at Rockford College. She was graduated from Rockford College with the degree of Bachelor of Arts in June, 1940. During the year 1940-41 she held a scholarship for graduate study in history at the University of Illinois and took her Master's degree there in June, 1941. She continued her study as a graduate fellow during the years 1941-43.